

**RAW SEQUENCE LISTING**  
**ERROR REPORT**

BIOTECHNOLOGY  
SYSTEMS  
BRANCH

RECEIVED

2001

1600/2900

#5  
DmJ  
6-14-01

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/654,652

Source: 1652

Date Processed by STIC: 5-29-01

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

**Checker Version 3.0**

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:  
<http://www.uspto.gov/web/offices/pac/checker>

## Raw Sequence Listing Error Summary

### ERROR DETECTED

### SUGGESTED CORRECTION

SERIAL NUMBER: 09/654,652

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 ☐ **Wrapped Nucleics**  
     **Wrapped Aminos**    The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
  
- 2 ☐ **Invalid Line Length**    The rules require that a line not exceed 72 characters in length. This includes white spaces.
  
- 3 ☒ **Misaligned Amino**  
     **Numbering**            The numbering under each 5<sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
  
- 4 ☐ **Non-ASCII**            The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
  
- 5 ☐ **Variable Length**      Sequence(s) \_\_\_\_\_ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
  
- 6 ☐ **PatentIn 2.0**  
     **"bug"**                A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) \_\_\_\_\_. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
  
- 7 ☐ **Skipped Sequences**  
     **(OLD RULES)**        Sequence(s) \_\_\_\_\_ missing. If intentional, please insert the following lines for each skipped sequence:  
                                  (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
                                  (i)        SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  
                                  (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
                                  This sequence is intentionally skipped  
  
                                  Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
  
- 8 ☐ **Skipped Sequences**  
     **(NEW RULES)**        Sequence(s) \_\_\_\_\_ missing. If intentional, please insert the following lines for each skipped sequence.  
                                  <210> sequence id number  
                                  <400> sequence id number  
                                  000
  
- 9 ☐ **Use of n's or Xaa's**  
     **(NEW RULES)**        Use of n's and/or Xaa's have been detected in the Sequence Listing.  
                                  Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.  
                                  In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
  
- 10 ☐ **Invalid <213>**  
     **Response**            Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
  
- 11 ☐ **Use of <220>**            Sequence(s) \_\_\_\_\_ missing the <220> "Feature" and associated numeric identifiers and responses.  
                                  Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.  
                                  (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
  
- 12 ☐ **PatentIn 2.0**  
     **"bug"**                Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

1652

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/654,652

DATE: 05/29/2001

TIME: 15:26:36

Input Set : A:\PTO.txt

Output Set: C:\CRF3\05292001\I654652.raw

Does Not Comply  
Corrected Diskette Needed  
PP 1-4

4 <110> APPLICANT: Shyur, Lie-Fen  
5 Chen, Jui-Lin  
6 Yang, Ning-Sun  
9 <120> TITLE OF INVENTION: A Truncated Form of Fibrobacter Succinogenes 1,3-1,4-Beta-D-Glucanase With  
10 Improved Enzymatic Activity And Thermo-Tolerance  
W--> 11 <130> FILE REFERENCE: 4910-8  
W--> 12 <140> CURRENT APPLICATION NUMBER: US 09/654,652  
13 <141> CURRENT FILING DATE: 2000-09-05  
W--> 14 <150> PRIOR APPLICATION NUMBER:  
W--> 15 <151> PRIOR FILING DATE:  
E--> 16 <160> NUMBER OF SEQ ID: ⑥

*Do not include headers which have no response.*

## ERRORED SEQUENCES

18 <210> SEQ ID NO: 1  
19 <211> LENGTH: 248  
20 <212> TYPE: PRT  
21 <213> ORGANISM: Artificial Sequence  
W--> 22 <220> FEATURE:  
23 <223> OTHER INFORMATION: Modified enzyme with enhanced activity and thermal stability  
W--> 24 <400> SEQUENCE: 1

25	Met	Val	Ser	Ala	Lys	Asp	Phe	Ser	Gly	Ala	Glu	Leu	Tyr	Thr	Leu	Glu	Glu	Val	Gln	Tyr
E--> 26	1				5				10				15			20				
27	Gly	Lys	Phe	Glu	Ala	Arg	Met	Lys	Met	Ala	Ala	Ser	Gly	Thr	Val	Ser	Ser	Met	Phe	
E--> 28		25		30		35						40								
29	Leu	Tyr	Gln	Asn	Gly	Ser	Glu	Ile	Ala	Asp	Gly	Arg	Pro	Trp	Val	Glu	Val	Asp	Ile	Glu
E--> 30			45		50		55		60											
31	Val	Leu	Gly	Lys	Asn	Pro	Gly	Ser	Phe	Gln	Ser	Asn	Ile	Ile	Thr	Gly	Lys	Ala	Gly	Ala
E--> 32		65			70				75		80									
33	Gln	Lys	Thr	Ser	Glu	Lys	His	His	Ala	Val	Ser	Pro	Ala	Ala	Asp	Gln	Ala	Phe	His	Thr
E--> 34		85		90		95		100												
35	Tyr	Gly	Leu	Glu	Trp	Thr	Pro	Asn	Tyr	Val	Arg	Trp	Thr	Val	Asp	Gly	Gln	Glu	Val	Arg
E--> 36		105		110		115		120												
37	Lys	Thr	Glu	Gly	Gly	Gln	Val	Ser	Asn	Leu	Thr	Gly	Thr	Gln	Gly	Leu	Arg	Phe	Asn	Leu
E--> 38		125		130				135				140								
39	Trp	Ser	Ser	Glu	Ser	Ala	Ala	Trp	Val	Gly	Gln	Phe	Asp	Glu	Ser	Lys	Leu	Pro	Leu	Phe
E--> 40			145		150		155		160											
41	Gln	Phe	Ile	Asn	Trp	Val	Lys	Val	Tyr	Lys	Tyr	Thr	Pro	Gly	Gln	Gly	Glu	Gly	Gly	Ser
E--> 42		165		170		175		180												
43	Asp	Phe	Thr	Leu	Asp	Trp	Thr	Asp	Asn	Phe	Asp	Thr	Phe	Asp	Gly	Ser	Arg	Trp	Gly	Lys
E--> 44		185		190		195		200												
45	Gly	Asp	Trp	Thr	Phe	Asp	Gly	Asn	Arg	Val	Asp	Leu	Thr	Asp	Lys	Asn	Ile	Tyr	Ser	Arg
E--> 46				205		210					215									
E--> 47	220																			
48	Asp	Gly	Met	Leu	Ile	Leu	Ala	Leu	Thr	Arg	Lys	Gly	Gln	Glu	Ser	Phe	Asn	Gly	Gln	Val
E--> 49		225		230		235		240												

Invalid  
Amino  
Acid  
Numbering  
Use  
Spaces  
not  
Tabs.  
See #3  
on the

Error Summary  
Sheet.  
5/29/01

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/654,652

DATE: 05/29/2001

TIME: 15:26:36

Input Set : A:\PTO.txt

Output Set: C:\CRF3\05292001\I654652.raw

```

50 Pro Arg Asp Asp Glu Pro Ala Pro
E--> 51 245
55 <210> SEQ ID NO: 2
56 <211> LENGTH: 267
57 <212> TYPE: PRT
58 <213> ORGANISM: Artificial Sequence
W--> 59 <220> FEATURE:
60 <223> OTHER INFORMATION: Modified enzyme with enhanced activity and thermal stability
W--> 61 <400> SEQUENCE: 2
62 Met Val Ser Ala Lys Asp Phe Ser Gly Ala Glu Leu Tyr Thr Leu Glu Glu Val Gln Tyr
E--> 63 1 5 10 15 20
64 Gly Lys Phe Glu Ala Arg Met Lys Met Ala Ala Ala Ser Gly Thr Val Ser Ser Met Phe
E--> 65 25 30 35 40
66 Leu Tyr Gln Asn Gly Ser Glu Ile Ala Asp Gly Arg Pro Trp Val Glu Val Asp Ile Glu
E--> 67 45 50 55 60
68 Val Leu Gly Lys Asn Pro Gly Ser Phe Gln Ser Asn Ile Ile Thr Gly Lys Ala Gly Ala
E--> 69 65 70 75 80
70 Gln Lys Thr Ser Glu Lys His His Ala Val Ser Pro Ala Ala Asp Gln Ala Phe His Thr
E--> 71 85 90 95 100
72 Tyr Gly Leu Glu Trp Thr Pro Asn Tyr Val Arg Trp Thr Val Asp Gly Gln Glu Val Arg
E--> 73 105 110 115 120
74 Lys Thr Glu Gly Gly Gln Val Ser Asn Leu Thr Gly Thr Gln Gly Leu Arg Phe Asn Leu
E--> 75 125 130 135 140
76 Trp Ser Ser Glu Ser Ala Ala Trp Val Gly Gln Phe Asp Glu Ser Lys Leu Pro Leu Phe
E--> 77 145 150 155 160
78 Gln Phe Ile Asn Trp Val Lys Val Tyr Lys Tyr Thr Pro Gly Gln Gly Glu Gly Gly Ser
E--> 79 165 170 175 180
80 Asp Phe Thr Leu Asp Trp Thr Asp Asn Phe Asp Thr Phe Asp Gly Ser Arg Trp Gly Lys
E--> 81 185 190 195 200
82 Gly Asp Trp Thr Phe Asp Gly Asn Arg Val Asp Leu Thr Asp Lys Asn Ile Tyr Ser Arg
E--> 83 205 210 215 220
84 Asp Gly Met Leu Ile Leu Ala Leu Thr Arg Lys Gly Gln Glu Ser Phe Asn Gly Gln Val
E--> 85 225 230 235 240
86 Pro Arg Asp Asp Glu Pro Ala Pro Asn Ser Ser Ser Val Asp Lys Leu Ala Ala Ala Leu
E--> 87 245 250 255 260
88 Glu His His His His His His
E--> 89 265
91 <210> SEQ ID NO: 3
92 <211> LENGTH: 349
93 <212> TYPE: PRT
94 <213> ORGANISM: Fibrobacter succinogenes
W--> 95 <220> FEATURE:
96 <223> OTHER INFORMATION:
W--> 97 <400> SEQUENCE: 3
98 Met Asn Ile Lys Lys Thr Ala Val Lys Ser Ala Leu Ala Val Ala Ala Ala Ala Ala
E--> 99 1 5 10 15 20
100 Leu Thr Thr Asn Val Ser Ala Lys Asp Phe Ser Gly Ala Glu Leu Tyr Thr Leu Glu Glu
E--> 101 25 30 35 40
102 Val Gln Tyr Gly Lys Phe Glu Ala Arg Met Lys Met Ala Ala Ala Ser Gly Thr Val Ser

```

Invalid  
Amino  
Acid  
numbers  
See  
p.1

Invalid amino acid numbering.  
See p.1

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/654,652

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Input Set : A:\PTO.txt

Output Set: C:\CRF3\05292001\I654652.raw

```

E--> 103      45      50      55      60
      104 Ser Met Phe Leu Tyr Gln Asn Gly Ser Glu Ile Ala Asp Gly Arg Pro Trp Val Glu Val
E--> 105      65      70      75      80
      106 Asp Ile Glu Val Leu Gly Lys Asn Pro Gly Ser Phe Gln Ser Asn Ile Ile Thr Gly Lys
E--> 107      85      90      95      100
      108 Ala Gly Ala Gln Lys Thr Ser Glu Lys His His Ala Val Ser Pro Ala Ala Asp Gln Ala
E--> 109      105      110      115      120
      110 Phe His Thr Tyr Gly Leu Glu Trp Thr Pro Asn Tyr Val Arg Trp Thr Val Asp Gly Gln
E--> 111      125      130      135      140
      112 Glu Val Arg Lys Thr Glu Gly Gly Gln Val Ser Asn Leu Thr Gly Thr Gln Gly Leu Arg
E--> 113      145      150      155      160
      114 Phe Asn Leu Trp Ser Ser Glu Ser Ala Ala Trp Val Gly Gln Phe Asp Glu Ser Lys Leu
E--> 115      165      170      175      180
      116 Pro Leu Phe Gln Phe Ile Asn Trp Val Lys Val Tyr Lys Tyr Thr Pro Gly Gln Gly Glu
E--> 117      185      190      195      200
      118 Gly Gly Ser Asp Phe Thr Leu Asp Trp Thr Asp Asn Phe Asp Thr Phe Asp Gly Ser Arg
E--> 119      205      210      215      220
      120 Trp Gly Lys Gly Asp Trp Thr Phe Asp Gly Asn Arg Val Asp Leu Thr Asp Lys Asn Ile
E--> 121      225      230      235      240
      122 Tyr Ser Arg Asp Gly Met Leu Ile Leu Ala Leu Thr Arg Lys Gly Gln Glu Ser Phe Asn
E--> 123      245      250      255      260
      124 Gly Gln Val Pro Arg Asp Asp Glu Pro Ala Pro Gln Ser Ser Ser Ser Ala Pro Ala Ser
E--> 125      265      270      275      280
      126 Ser Ser Ser Val Pro Ala Ser Ser Ser Ser Val Pro Ala Ser Ser Ser Ser Ala Phe Val
E--> 127      285      290      295      300
      128 Pro Pro Ser Ser Ser Ser Ala Thr Asn Ala Ile His Gly Met Arg Thr Thr Pro Ala Val
E--> 129      305      310      315      320
      130 Ala Lys Glu His Arg Asn Leu Val Asn Ala Lys Gly Ala Lys Val Asn Pro Asn Gly His
E--> 131      325      330      335      340
      132 Lys Arg Tyr Arg Val Asn Phe Glu His
E--> 133      345
      210 <210> SEQ ID NO: 7
      211 <211> LENGTH: (13)
      212 <212> TYPE: DNA
      213 <213> ORGANISM: Artificial Sequence
W--> 214 <220> FEATURE:
      215 <223> OTHER INFORMATION: PCR primer
W--> 216 <400> SEQUENCE: 7
E--> 217 tcaccaccat ggttagcgca aag (13) - 13 listed
      219 <210> SEQ ID NO: 8
      220 <211> LENGTH: (15) - 23 shown
      221 <212> TYPE: DNA
      222 <213> ORGANISM: Artificial Sequence
W--> 223 <220> FEATURE:
      224 <223> OTHER INFORMATION: PCR primer
W--> 225 <400> SEQUENCE: 8
E--> 226 gccacgaatt ctgttcaaag ttcac (15)
      228 <210> SEQ ID NO: 9
      229 <211> LENGTH: (17)

```

Invalid amino  
acid numbering.

See p.1

Seq #7

- 23 shown

Seq #8

- 15 listed  
- 25 shown

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/654,652

DATE: 05/29/2001

TIME: 15:26:36

Input Set : A:\PTO.txt

Output Set: C:\CRF3\05292001\I654652.raw

230 <212> TYPE: DNA  
231 <213> ORGANISM: Artificial Sequence  
W--> 232 <220> FEATURE:  
233 <223> OTHER INFORMATION: PCR Primer  
W--> 234 <400> SEQUENCE: 9  
E--> 235 cagccggcgga tggccatggt tagcgca (17)  
237 <210> SEQ ID NO: 10  
238 <211> LENGTH: (19)  
239 <212> TYPE: DNA  
240 <213> ORGANISM: Artificial Sequence  
W--> 241 <220> FEATURE:  
242 <223> OTHER INFORMATION: PCR Primer  
W--> 243 <400> SEQUENCE: 10  
E--> 244 ctgctagaag aattcggagc aggttcgtc (19)

Seg # 9  
- 17 listed  
- 27 shown

Seg # 10  
- 19 listed  
- 29 shown

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/654,652

DATE: 05/29/2001

TIME: 15:26:37

Input Set : A:\PTO.txt

Output Set: C:\CRF3\05292001\I654652.raw

L:11 M:283 W: Missing Blank Line separator, <130> field identifier  
L:12 M:283 W: Missing Blank Line separator, <140> field identifier  
L:14 M:256 W: Invalid Numeric Header Field, <150> PRIOR APPLICATION NUMBER:  
L:15 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD  
L:16 M:283 W: Missing Blank Line separator, <160> field identifier  
L:22 M:283 W: Missing Blank Line separator, <220> field identifier  
L:24 M:283 W: Missing Blank Line separator, <400> field identifier  
L:26 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1  
L:28 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1  
L:30 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1  
L:32 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1  
L:34 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1  
L:36 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1  
L:38 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1  
L:40 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1  
L:42 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1  
L:44 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1  
L:46 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1  
L:47 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1  
L:49 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1  
L:51 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1  
L:59 M:283 W: Missing Blank Line separator, <220> field identifier  
L:61 M:283 W: Missing Blank Line separator, <400> field identifier  
L:63 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
L:65 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
L:67 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
L:69 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
L:71 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
L:73 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
L:75 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
L:77 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
L:79 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
L:81 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
L:83 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
L:85 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
L:87 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
L:89 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2  
L:95 M:283 W: Missing Blank Line separator, <220> field identifier  
L:97 M:283 W: Missing Blank Line separator, <400> field identifier  
L:99 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:101 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:103 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:105 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:107 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:109 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:111 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:113 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:115 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/654,652

DATE: 05/29/2001

TIME: 15:26:37

Input Set : A:\PTO.txt

Output Set: C:\CRF3\05292001\I654652.raw

L:117 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:119 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:121 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:123 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:125 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:127 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:129 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:131 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:133 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3  
L:139 M:283 W: Missing Blank Line separator, <220> field identifier  
L:141 M:283 W: Missing Blank Line separator, <400> field identifier  
L:162 M:283 W: Missing Blank Line separator, <220> field identifier  
L:164 M:283 W: Missing Blank Line separator, <400> field identifier  
L:187 M:283 W: Missing Blank Line separator, <220> field identifier  
L:189 M:283 W: Missing Blank Line separator, <400> field identifier  
L:214 M:283 W: Missing Blank Line separator, <220> field identifier  
L:216 M:283 W: Missing Blank Line separator, <400> field identifier  
L:217 M:254 E: No. of Bases conflict, LENGTH:Input:13 Counted:23 SEQ:7  
L:217 M:252 E: No. of Seq. differs, <211>LENGTH:Input:13 Found:23 SEQ:7  
L:223 M:283 W: Missing Blank Line separator, <220> field identifier  
L:225 M:283 W: Missing Blank Line separator, <400> field identifier  
L:226 M:254 E: No. of Bases conflict, LENGTH:Input:15 Counted:25 SEQ:8  
L:226 M:252 E: No. of Seq. differs, <211>LENGTH:Input:15 Found:25 SEQ:8  
L:232 M:283 W: Missing Blank Line separator, <220> field identifier  
L:234 M:283 W: Missing Blank Line separator, <400> field identifier  
L:235 M:254 E: No. of Bases conflict, LENGTH:Input:17 Counted:27 SEQ:9  
L:235 M:252 E: No. of Seq. differs, <211>LENGTH:Input:17 Found:27 SEQ:9  
L:241 M:283 W: Missing Blank Line separator, <220> field identifier  
L:243 M:283 W: Missing Blank Line separator, <400> field identifier  
L:244 M:254 E: No. of Bases conflict, LENGTH:Input:19 Counted:29 SEQ:10  
L:244 M:252 E: No. of Seq. differs, <211>LENGTH:Input:19 Found:29 SEQ:10  
L:16 M:203 E: No. of Seq. differs, <160> Number Of Sequences:Input (6) Counted (10)